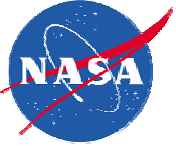# Mission Applications Branch Code 583

Branch Technical Status Report

September 22, 2004

Presentations
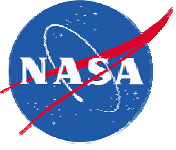
- ## User Requirements Development Utility (URDU)

  Terry McRoberts
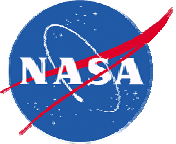
- ## MAB Project Status Overview
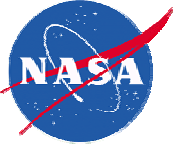
  Henry Murray

MAB Project Status

Henry Murray

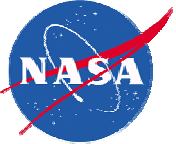| Activity	Jul	Aug	Sep	ISD Date	CS	ΔCS	SSC	Comments
ESDIS								
EOS Aura FDS	G	G	G	4/03	1.0		0.5	Aura FDS Release D3 promoted to operations on 8/18/04. MSES EOS FDS maintenance and system administration tasks transitioning to new EOS FD Ops MOMS task in November.
EOS Aura MMS	G	G	G	10/01	0.6		0.5	Terra MMS Build 14.1.7 Patch delivered to EOC for testing on 8/25/04. Continued support of MMS transition from Raytheon to MOMS Contract. Continued support of Instrument Support Terminal (IST) reengineering with security and H/W issues.
ESMO CCS	G	G	G		0.7		0.3	CCS supported the CALIPSO simulation #1. Release 2 of CCS delivered to Acceptance Testing on 9/7/04. Delivery to operations scheduled for 10/1/04.
ASSET	G	G	G	9/02	0.1		0.4	Draft Aura ASSET Requirements Document delivered for review on 8/27/04.
Swift								
BAT FSW Testing	G	G	G		1.0			Continued testing of all problem reports flagged as "Ready to Test" in Swift Problem Report Database.
Science Center	G	G	G		0.7			Internal release of Build 9 delivered on 8/9/04. Continued development of SDC level 2 and 3 science data pipelines for Ultraviolet Optical Telescope (UVOT) and X-Ray Telescope (XRT) instruments.
BAT I&T	G	G	G	6/03	1.0			The Swift spacecraft and BAT completed 100 hours of testing required for launch in late August. All Swift software, including the BAT procs and pages, are frozen for launch.
Code 900								
ESMF	G	G	G	12/02	0.5			ESMF team will be extended to 8/05/05. The team is still working interoperability milestone issues. All remaining milestones have been renegotiated.

| Activity	Jul	Aug	Sep	ISD Date	CS	Δ CS	SSC	Comments
HST								
Mgmt/Operations	G	G	G		1.6		0.5	Monitored contractor support for H/W moves from the STScI to GSFC. Coordinated Goddard Community Day tours in the HST Control Center. Worked with FMD to solve facility issues in HST Network Equipment Room. Lisa Mazzuca will be the HST Servicing Mission Observatory Verification (SMOV) manager for the next Hubble Robotic Vehicle (HRV) servicing mission. Lisa Mazzuca and Scott Green currently serving as members on two HST Failure Review Boards for STIS suspend mode and upload of corrupted data table.
Tools	G	G	G		1.0		0.5	Corrected DRs against the HST FOT Request System (FRS). Delivery deferred until new host machine set up is complete.
STScI	G	G	G	5/02	0.8		0.3	Continued support to the NICMOS Cooling System (NCS) Operations Working Group.
Code 600								
LEP	G	G	G	8/01	1.0			Continued design and implementation of ST-5 magnetometer ground data processing software. Continued implementation of Wind magnetometer high resolution calibration software.
SPDF	G	G	G	7/02	2.0			Continue enhancement of web services for Satellite Situation Center and Coordinated Data Analysis Services. Prototyping web services application for National Space Science Data Center and Polar, Wind and Geotail.
Stellar Imager	G	G	G	5/02	0.2			Continued support.

Activity	Jul	Aug	Sep	ISD Date	CS	ΔCS	SSC	Comments
Flight Dynamics								
Goddard Mission Analysis Tool	G	G	G		5.3		1.0	**Build 3 delivered on 7/30/04 (capability to propagate multiple spacecraft). Continued development of Build 4, scheduled for delivery 12/17/04**
TRMM Automation	G	G	G		0.3		0.5	**Supported testing of TRMM automation scenarios in GMSEC lab. Security and Contingency Plans approved and signed. Working requirements and schedule issues with Eclipse.**
Formation Flying Testbed	G	G	G		0.1			**No significant updates.**
PFFIAT	G	G	G	7/04	1.0			**Integrated existing libraries with MATLAB 7.0. Continued implementation of next release.**
GTDS UI	G	G	G		1.3			**Continued user training on v1.01. GTDS UI v2.0 scheduled for delivery 10/15/04.**
NASA SW Initiative								
CMMI/EPG	G	G	G	9/04	1.9	+ 1.0	2.5	**Conducted Class C CMMI appraisal on 3 flight software projects. Prepared action plan to address gaps found during appraisal. Began task planning for FY05. Sanjeev Sharma selected as Deputy SPI Project Manager, started 8/23/04.**
SWG Metrics	G	G	G	9/04	0.2		0.5	**Drafted metrics section of NPR 7150.2. Prepared guidance/training presentation for Center and Projects to use in establishing measurement programs.**
SWG	G	G	G	9/04	0.1		0.5	**Completed disposition of NODIS comments on Software NPR 7150.2 and participated in Code Y Team to recommend NPR changes to address non-concurrences. (NPR will be officially signed as soon as final editing is completed.) Attended SWG Face-to-Face in Cleveland, and presented status of GSFC SPI Project. Participated in the SWG Acquisition Workshop and planning for FY05 training sessions.**

| Activity	Jul	Aug	Sep	ISD Date	CS	∆CS	SSC	Comments
GMSEC								
Planning & Scheduling	G	G	G		1.8	- 0.1	1.0	Developed GMSEC compliant interface for MOPSS/Scenario Scheduler to support TRMM Reengineering. Developed GMSEC STK/Scheduler adaptor. Integrating STK/Scheduler into Code 586 Aqua/Aura Sensor Web IRAD activity.
Architecture/Lab	G	G	G		2.0	- 0.2		GMSEC API v1.0.2 delivered in 8/20/04, and used in TRMM and SMEX reengineering for autonomous operations. Continued demonstrations of the TRMM/GMSEC System to upcoming missions, including GPM. Code 580 management team demo scheduled for 9/28/04.
SIMSS	G	G	G		1.0		1.8	Continuing development of the GLAST PSS. Continued support of GMSEC middleware testing.
Trend/Event Analysis	G	G	G		0.7		3.5	Wind/Polar ITPS Release 2 delivered on 9/2/04. Transitioning SOHO ITPS and W/P ITPS to MOMS maintenance task.
Flight Dynamics Automation	G	G	Y		0.1	- 0.6	0.3	Need to identify new task lead.
MADECC	G	G	Y		0.0	- 0.1	0.1	Need to identify new task lead.
Middleware	G	G	G		0.1		0.3	Continued correction of anomalies in Benchmarking Program Performed initial benchmarking for Rendezvous, Smartsockets and Elvin middleware products, and began initial evaluation of results.
Technology								
AMPS	G	G	G		0.3		2.5	Continued collaboration with ARC on development of Distributed Earth Science Observation Planning System (DESOPS) using the AMPS architecture. DESOPS EOY status presented to Earth Science Technology Office on 9/14/04.
Adaptive Sensor Fleet	G	G	G	7/04	1.5			Supporting subsystems development. Maintaining Earned Progress spreadsheet to track progress.
URDU	G	G	G	9/04	0.7			
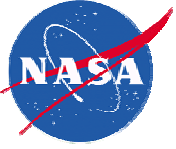
Personnel Transitions

Person	From		To		FTE
	Project	**Business Type**	**Project**	**Business Type**	
Tim Esposito	**FD Automation**	**AISE - Unique**	**Resigned**		**0.7**
Tim Esposito	**GMSEC Architecture**	**AISE - Technology**	**Resigned**		**0.2**
Tim Esposito	**STK Scheduler Evaluation**	**ISE-Primary Work, Standard**	**Resigned**		**0.1**
Sanjeev Sharma	**New Hire**		**Software Process Improvement**	**AISE - Proc Improv**	**1.0**

Business Type Distribution
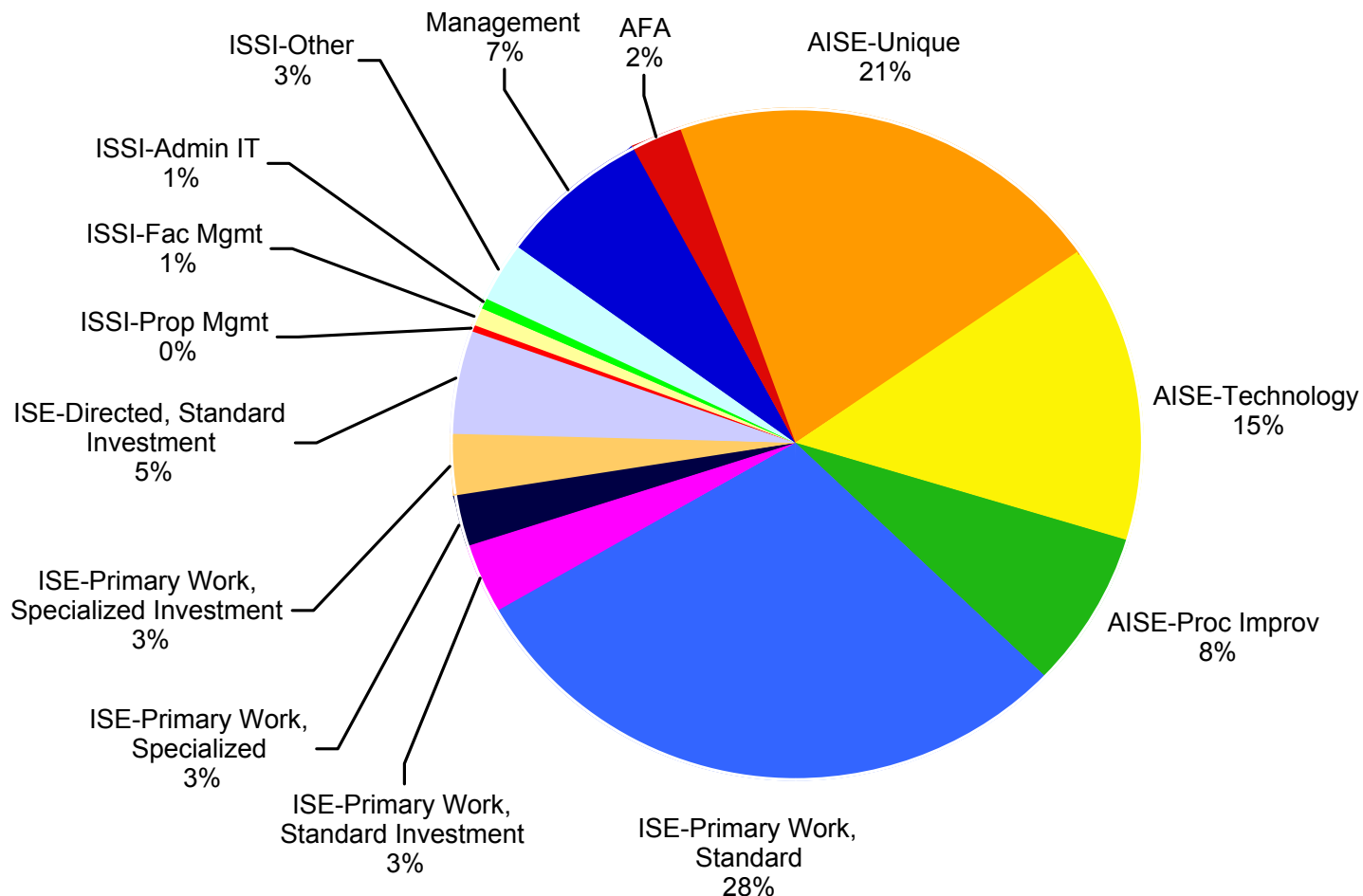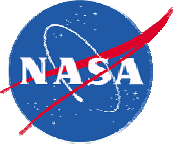
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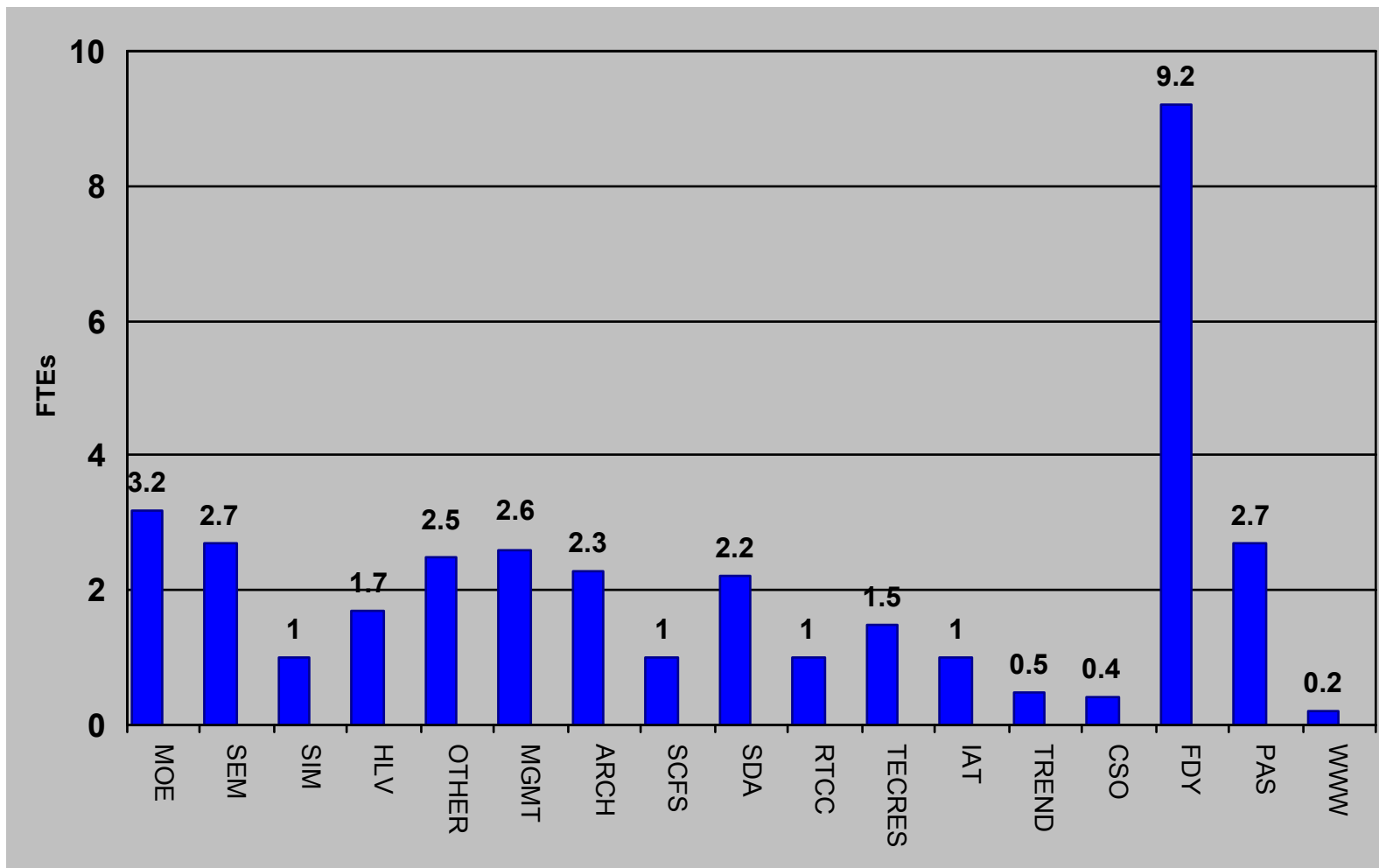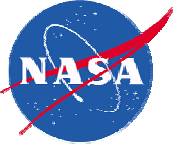
Acronyms

AAS	American Astronomical Society
AMPS	Automated Mission Planning System
ASSET	Advanced SSR Scheduling Tool
BAT	Burst Alert Telescope
CAN	Cooperative Agreement Notice
CCS	Constellation Coordination System
CMMI	Capability Maturity Model - Integrated
DR	discrepancy report
EMOS	EOS Mission Operations System
EPG	Engineering Process Group
EOC	EOS Operations Center
ESMF	Earth System Modeling Framework (931)
ESMO	Earth Science Mission Operations
FDAB	Flight Dynamics Analysis Branch (595)
FDS	Flight Dynamics System
FFTB	Formation Flying Testbed
FOR	Flight Operations Review
FOT	Flight Operations Team
FSW	flight software
GMAT	Goddard Mission Analysis Tool
GMSEC	GSFC Mission Services Evolution Center
GS	ground system
GTDS	Goddard Trajectory Determination System
HST	Hubble Space Telescope
ICD	Interface Control Document

ITPS	Integrated Trending and Plotting System
I&T	integration and test
LEP	Laboratory for Extraterrestrial Physics (696)
MADECC	Multiple Autonomous Discrete Event Controllers for Constellations
MMS	Mission Management System
MOMS	Mission Operations and Mission Services
NICMOS	Near Infrared Camera and Multi-Object Spectrometer
NPR	NASA Procedural Requirement
PFFIAT	Precision Formation Flying Integrated Analysis Tool
P&S	planning and scheduling
SAC	sensor analysis calibration
SCAMPI	Standard CMMI Appraisal Method for Process Improvement
SCAT	Software Configuration Automation Tool
SDP	science data processing
SPDF	Space Physics Data Facility (632)
SIMSS	Scalable Integrated Multi-Mission Simulation Suite
SSC	Satellite Situation Center
SSC	Swift Science Center
STIS	space telescope Imaging Spectrograph
STScI	Space Telescope Science Institute
SWG	Software Working Group
UI	user interface
URDU	User-Interactive Requirements Development Utility